



Features

- Low reverse current and low forward voltage.
- High reliability.
- Small surface mounting type.



RB521V-30
SOD-323



RB521S-30
SOD-523

Typical Applications

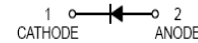
- Low current rectification.



RB521L-30
DFN1006-2

Mechanical Data

- Case: SOD-323,SOD-523,DFN1006-2
- Molding compound, UL flammability classification rating 94V-0.
- Terminals: Tin plated leads, solderable per MIL-STD-202, Method 208.



Ordering Information

Part Number	Package	Shipping	Marking Code
RB521V-30	SOD-323	3000/Tape Reel	C
RB521S-30	SOD-523	3000/Tape Reel	C
RB521L-30	DFN1006-2	10000/Tape Reel	C

Maximum Ratings (@T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Units
Peak Repetitive Reverse Voltage	V _{RRM}	30	V
DC Blocking Voltage	V _{DC}	30	V
Maximum Average Forward Output Current	I _{F(AV)}	200	mA
Peak Forward Surge Current,8.3ms Single Half-sine-wave	I _{FSM}	1	A

Thermal Characteristics

Parameter	Symbol	RB521V-30	RB521S-30	RB521L-30	Units
Power Dissipation	P _D	200	150	100	mW
Typical Thermal Resistance per leg	R _{θJA} *	500	667	1000	°C/W
Thermal resistance junction to Lead	R _{θJL}	323	658	987	°C/W
Thermal resistance junction to case	R _{θJc}	276	421	631	°C/W
Operating Junction Temperature Range	T _J	-40 to +125			°C
Storage Temperature Range	T _{STG}	-40 to +150			°C

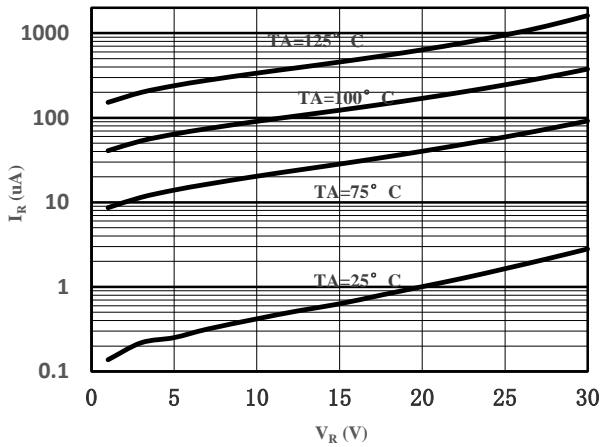
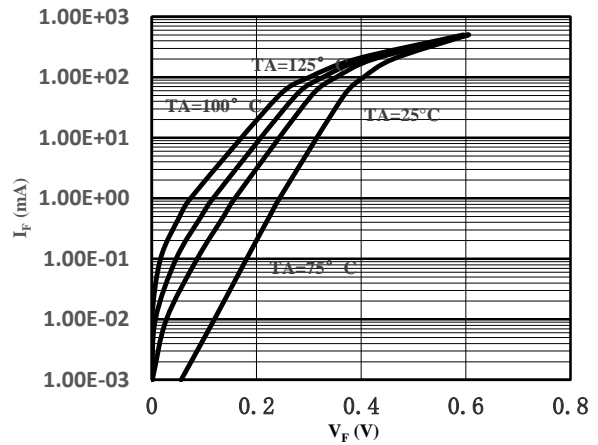
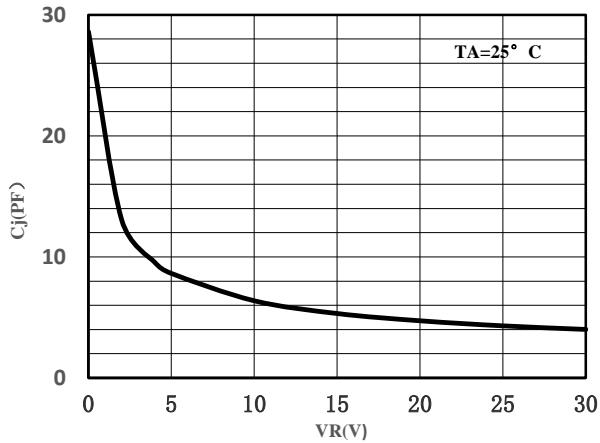
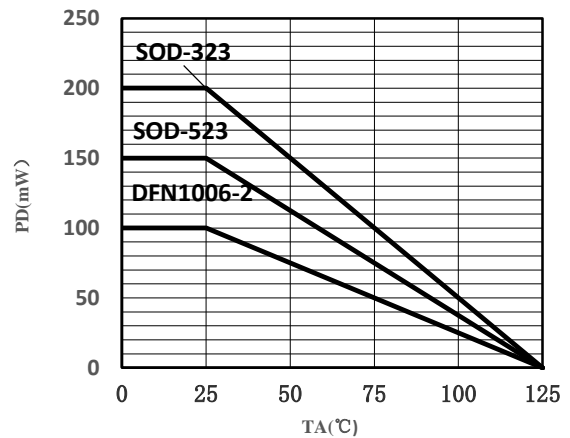
* Part mounted on FR-4 board with recommended pad layout

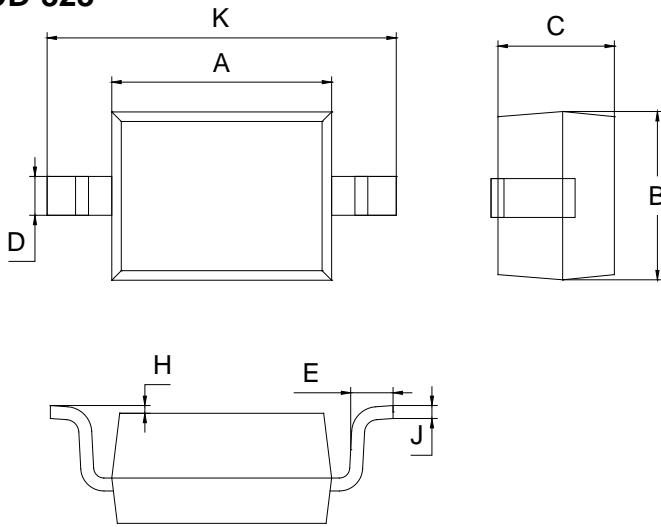

Electrical Characteristics (@T_A=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Forward Voltage	V _F *	I _F = 10mA	-	-	0.38	V
		I _F = 200mA	-	-	0.5	V
Maximum Peak Reverse Current	I _R **	V _R = 10V	-	-	30	uA

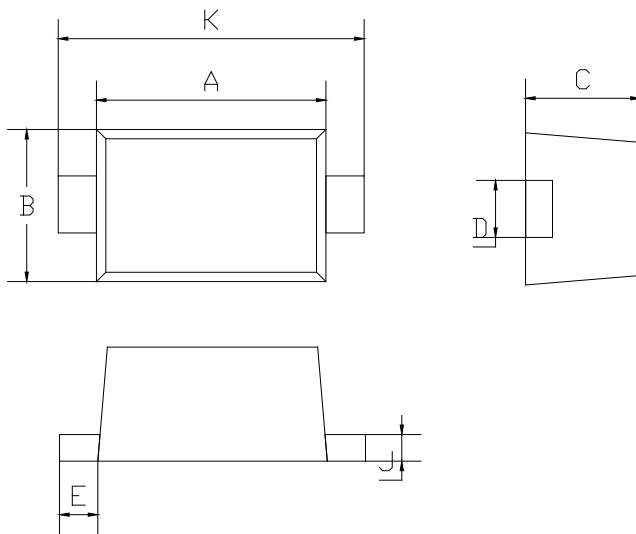
*Pulse width ≤380 uS, Duty cycle < 2%

**pulse test , t_p≤5ms

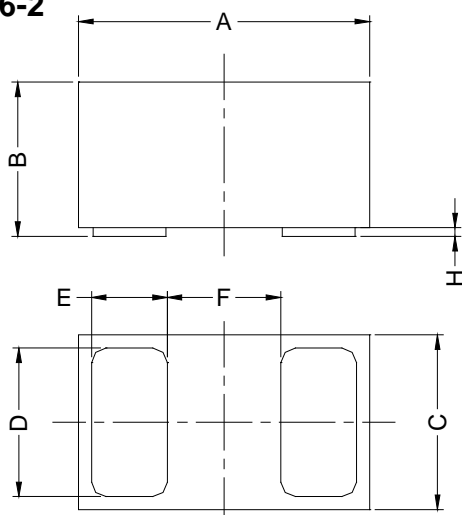
Ratings and Characteristic Curves (T_A=25°C unless otherwise noted)

Fig 1 Typical Reverse Characteristic

Fig 2 Typical Forward Characteristics

Fig 3 Capacitance Characteristics

Fig 4 Derating Curve


Package Outline Dimensions (unit:mm)
SOD-323


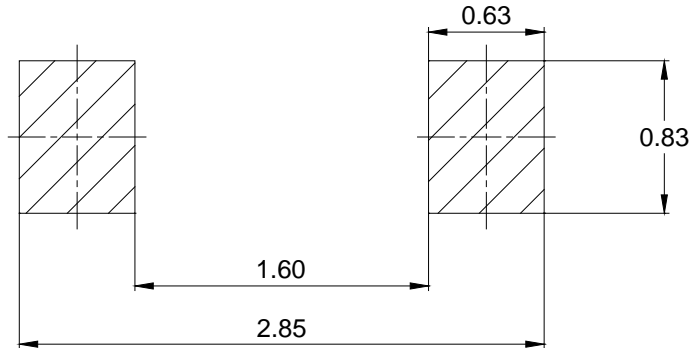
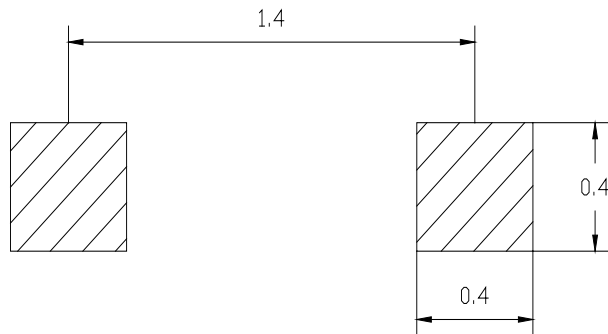
SOD-323		
Dim	Min	Max
A	1.60	1.80
B	1.20	1.40
C	0.80	0.90
D	0.25	0.35
E	0.22	0.42
H	0.02	0.10
J	0.05	0.15
K	2.55	2.75

SOD-523


SOD-523		
Dim	Min	Max
A	1.10	1.30
B	0.70	0.90
C	0.50	0.70
D	0.25	0.35
E	0.15	0.25
J	0.05	0.15
K	1.50	1.70

DFN1006-2


DFN1006-2			
Dim	Min	Typ	Max
A	0.95	1.00	1.075
B	0.47	0.50	0.53
C	0.55	0.60	0.675
D	0.45	0.50	0.55
E	0.20	0.25	0.30
F	-	0.40	-
H	0	0.03	0.05

**Mounting Pad Layout(unit:mm)****SOD-323****SOD-523****DFN1006-2**